C.   REMARKS

The Examiner is thanked for the performance of a thorough search. By this amendment, Claims 1-4, 7, 8, 11, 13, 15, 16, 17 and 21-23 have been amended and new Claims 24-64 have been added. Hence, Claims 1-64 are pending in this application. The amendments to the claims and the new claims do not add any new matter to this application. Furthermore, the amendments to the claims were made to improve the readability and clarity of the claims and not for any reason related to patentability. All issues raised in the Office Action mailed June 30, 2004 are addressed hereinafter.

OBJECTION TO DRAWINGS

The drawings were objected to as failing to comply with 37 C.F.R. § 1.84(p)(5). New formal drawings are submitted herewith for consideration by the Examiner. FIG. 1A has been changed to depict that Network Management Station 104 includes Operations Support System 108 with Fault Correlation Module 106. FIG. 1B has been amended to change reference numeral 100 to 101 and Sections 0048 and 0049 of the specification have been amended to refer to "managed network 101". FIG. 1B has also been amended to change Fault Correlation Module 130 to Fault Correlation Proxy 130 to be consistent with the specification. Approval and acceptance of the new formal drawings and reconsideration and withdrawal of the objection to the drawings is respectfully requested.

OBJECTION TO SPECIFICATION

The specification was objected to because of several informalities. All of these have been addressed by amendment as indicated below, except for three issues. The first issue relates

to the text at lines 5-6 of Section 0007, namely, "[a]lso, the way each vendor generates the labels might not be unique across the heterogeneous network." Applicant respectfully submits that the problem referred to in this statement is that different vendors may use the same correlation key label for different alarms, leading to errors in processing of correlation key labels. Thus, it is believed that no amendment to this particular sentence is necessary. The second issue relates to the text at line 3 of Section 0046, namely, "occurring in networks 100, 102." It is respectfully submitted that it is proper and appropriate to use a comma and space to separate multiple reference numerals associated with text. Thus, it is believed that no amendment to this particular sentence is necessary. The third issue relates to the network management layer 204 introduced in Section 0073 and depicted in FIG. 2. It is respectfully submitted that no further explanation is necessary at this point, however, Applicant is willing to amend the specification at a later time if necessary, subject to the prohibition of adding new matter to the application.

--In Section 0002, the word "of" in "may comprise of one or more network elements" has been removed.

--In Section 0016, the word "for" has been replaced with "from".

--The term "OSS system" has been changed to "OSS" throughout the specification.

--In Section 0023, "plurality fields" has been changed to "plurality of fields".

--In Sections 0048 and 0049, the term "network 102" has been changed to "network 101" to be consistent with the changes to the figures.

--In Section 0054, the language has been amended to clarify the description of processing alarm messages.

--In Section 0058, the word "carried" has been replaced with "carry".

--In Section 0064, "'1/20'" has been changed to "'2/1/30'".

--In Section 0074, "media controllers" has been changed to "media gateway controllers".

--The Abstract has been shortened to 150 words or less.

In view of the amendments to the specification made herein, reconsideration and withdrawal of the objection to the specification is respectfully requested.

OBJECTION TO CLAIMS

The claims have been objected to for containing several informalities. The claims have been amended to change "OSS system" to "OSS". Accordingly, reconsideration and withdrawal of the objection to the claims is respectfully requested.

REJECTION OF CLAIMS 1, 2, 5-8, 14, 17, 18, 22 AND 23 UNDER 35 U.S.C. § 102(e)

Claims 1, 2, 5-8, 14, 17, 18, 22 and 23 were rejected under 35 U.S.C. § 102(e) as being anticipated by *Spencer*, U.S. Patent No. 6,253,243. It is respectfully submitted that Claims 1, 2, 5-8, 14, 17, 18, 22 and 23, as amended, are patentable over *Spencer* for at least the reasons provided hereinafter.

CLAIM 1

Claim 1, as amended, recites a method of generating an external correlation key value for use in correlating alarms emitted by network elements or system elements in a telecommunications network control apparatus that requires:

> "receiving an alarm message generated by a network element or system element of the telecommunications network;
> identifying a context value in the alarm message;
> retrieving, based upon the context value in the alarm message, from a table that associates context values to internal correlation key value formulas, a formula specifying how to generate an internal correlation key value;
> creating and storing the internal correlation key value based on the formula;
> generating the external correlation key value based on the internal correlation key value; and

sending the alarm message and external correlation key value to an external system for use in correlating alarms."

It is respectfully submitted that Claim 1 includes one or more limitations that are not taught or suggested by *Spencer*. For example, Claim 1 requires that the one or more slave control mechanisms be configured to "establish a first logical computing entity" by "selecting the first subset of processing resources from a set of processing resources, selecting the first subset of storage resources from a set of storage resources, and causing the first subset of processing resources to be communicatively coupled to the first subset of storage resources." Furthermore, the first logical computing entity must be "capable of operating independent of the master control mechanism and the one or more slave control mechanisms." These limitations are not taught or suggested by *Spencer*.

Spencer describes both a conventional and a new approach for mapping SNMP traps to Common Management Information Protocol (CMIP) events. In the conventional approach, an SNMP trap daemon receives an SNMP trap from a network. The SNMP trap is SNMP trap data that is in the form of an SNMP trap Protocol Data Unit (PDU). An SNMP trap PDU contains different fields of data, some of which are universal and some of which are vendor specific. The SNMP trap daemon uses a value in the <enterprise> field of a received SNMP trap PDU to locate a corresponding block of mapping records in a trap mapping file, referred to as a "trap_maps" file. The SNMP trap daemon then locates the first mapping record within the block of mapping records that matches both the <generic-trap> and <specific-trap> fields in the SNMP trap PDU. The SNMP trap daemon then uses the NOTIFICATION keyword in the located mapping record to convert the SNMP trap to a CMIP notification.

In the new approach for mapping SNMP traps to CMIP events described in Spencer, the format of the trap_maps file is modified to support both wildcard elements that match ranges of <generic-trap> and <specific-trap> field values and string concatenation. Spencer also describes how the SNMP trap daemon generates internal data structures used by the daemon to convert SNMP traps to CMIP notifications.

It is respectfully submitted that Claim 1 is patentable over Spencer because one or more limitations required by Claim 1 are not taught or suggested by Spencer. For example, it is respectfully submitted that Spencer does not teach or suggest "retrieving, based upon the context value from the alarm message, from a table that associates context values to internal correlation key value formulas, a formula specifying how to generate an internal correlation key value, creating and storing the internal correlation key value based on the formula" and "generating the external correlation key value based on the internal correlation key value." Spencer does not in any way teach or suggest retrieving "a formula specifying how to generate an internal correlation key value" based upon a context value in an SNMP trap PDU. Spencer describes converting SNMP traps to CMIP notifications using a simple mapping, but there is no mention or suggestion of retrieving formulas to do this based upon field values in an SNMP trap PDU. Even if a mapping record of Spencer was considered to be the "formula" recited in Claim 1 and a CMIP notification was considered to be the "internal correlation key" recited in Claim 1, Spencer does not teach or suggest generating another value based upon the CMIP notification, i.e., the "external correlation key" recited in Claim 1.

The Office Action asserts that the Claim 1 limitation of "retrieving, based upon the context value in the alarm message, from a table that associates context values to internal correlation key value formulas, a formula specifying how to generate an internal correlation key

value" is taught by Spencer at Col. 8, lines 5-17. This portion of Spencer describes the structure of mapping record blocks and does not mention or suggest any formulas for generating internal correlation key values, or an equivalent. The Office Action asserts that the Claim 1 limitation of "creating and storing the internal correlation key value based on the formula" is taught by Spencer at Col. 16, lines 63-67. This portion of Spencer describes generating a CMIP notification from an SNMP trap and, as previously described, does not teach or suggest generating an internal correlation key value based upon a retrieved formula. The Office Action asserts that the Claim 1 limitation of "generating the external correlation key value based on the internal correlation key value" is taught by Spencer at Col. 17, lines 1-5. This portion of Spencer describes how an extracted TUPLE structure stored the information necessary to generate a CMIP notification from an SNMP trap and, as previously described, does not teach or suggest "generating the external correlation key value based on the internal correlation key value". In view of the foregoing, it is respectfully submitted that the Claim 1 limitations of "retrieving, based upon the context value from the alarm message, from a table that associates context values to internal correlation key value formulas, a formula specifying how to generate an internal correlation key value, creating and storing the internal correlation key value based on the formula" and "generating the external correlation key value based on the internal correlation key value" are not taught or suggested by Spencer.

In addition to the foregoing, it is respectfully submitted that the Claim 1 limitation of "sending the alarm message and external correlation key value to an external system for use in correlating alarms" is also not taught or suggested by Spencer. This limitation requires that both the original message and the external correlation key value be sent to an external system for use in correlating alarms. Spencer does not teach or suggest sending both the original SNMP trap

PDU and an external correlation key value to an external system. Also, the final information provided in Spencer to other network elements is not used for correlating alarms as required by Claim 1, since the CMIP notification is the final result of the correlating process described in Spencer, i.e., converting SNMP traps to CMIP notifications. The Office Action asserts that this limitation is taught by FIG. 7 of Spencer. FIG. 7 depicts how SNMP traps are processed by an SNMP trap daemon. There is no indication from the content of FIG. 7, or the corresponding description text, that the notifications generated by the SNMP trap daemon include the original SNMP trap PDUI and an external correlation key value, as recited in Claim 1. It is therefore respectfully submitted that the limitation of "sending the alarm message and external correlation key value to an external system for use in correlating alarms" is also not taught or suggested by Spencer.

In view of the foregoing, it is respectfully submitted that Claim 1 recites one or more limitations that are not in any way taught or suggested by Spencer and that Claim 1 is therefore patentable over Spencer.

CLAIMS 2, 5-8 AND 14

Claims 2, 5-8 and 14 all depend from Claim 1 and include all of the limitations of Claim 1. It is therefore respectfully submitted that Claims 2, 5-8 and 14 are patentable over *Spencer* for at least the reasons set forth herein with respect to Claim 1. Furthermore, it is respectfully submitted that Claims 2, 5-8 and 14 recite additional limitations that independently render them patentable over *Spencer*.

CLAIM 17

Claim 17 recites limitations similar to Claim 1, except in the context of a computer-readable medium. It is therefore respectfully submitted that Claim 17 is patentable over Spencer for at least the reasons set forth herein with respect to Claim 1.

CLAIM 18

Claim 18 recites limitations similar to Claim 7, except in the context of a computer-readable medium. It is therefore respectfully submitted that Claim 18 is patentable over Spencer for at least the reasons set forth herein with respect to Claim 7.

CLAIMS 22 AND 23

Claims 22 and 23 recite limitations similar to Claim 1, except in the context of apparatuses. It is therefore respectfully submitted that Claims 22 and 23 are patentable over Spencer for at least the reasons set forth herein with respect to Claim 1.

In view of the foregoing, it is respectfully submitted that Claims 1, 2, 5-8, 14, 17, 18, 22 and 23 are patentable over *Spencer*. Accordingly, reconsideration and withdrawal of the rejection of Claims 1, 2, 5-8, 14, 17, 18, 22 and 23 under 35 U.S.C. § 102(e) as being anticipated by *Spencer* is respectfully requested.

REJECTION OF CLAIMS 3, 4, 9-11 AND 19-21 UNDER 35 U.S.C. § 103(a)

Claims 3, 4, 9-11, 15 and 19-21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Spencer* in view of *Tentij et al.,* U.S. Patent No. 6,513,129 (hereinafter *"Tentij"*). It is respectfully submitted that Claims 3, 4, 9-11, 15 and 19-21 are patentable over *Spencer* and *Tentij*, alone or in combination, for at least the reasons provided hereinafter.

Claims 3, 4, 9-11 and 15 depend from Claim 1 and include all of the limitations of Claim 1. As previously set forth herein, Claim 1 includes one or more limitations that are not taught or

suggested by *Spencer*. It is also respectfully submitted that these limitations are also not taught or suggested by *Tentij* and that Tentij was not relied upon for teaching these limitations. For example, Claims 3, 4, 9-11 and 15 require "retrieving, based upon the context value from the alarm message, from a table that associates context values to internal correlation key value formulas, a formula specifying how to generate an internal correlation key value, creating and storing the internal correlation key value based on the formula" and "generating the external correlation key value based on the internal correlation key value."

Tentij describes a system and method for managing faults using a gateway configured with a rules engine. There is no description or suggestion in *Tentij*, however, of generating an external correlation key value for use in correlating alarms emitted by network elements or system elements in a telecommunications network control apparatus in the manner required by Claims 3, 4, 9-11 and 15, namely, by "retrieving, based upon the context value from the alarm message, from a table that associates context values to internal correlation key value formulas, a formula specifying how to generate an internal correlation key value, creating and storing the internal correlation key value based on the formula" and "generating the external correlation key value based on the internal correlation key value." Claims 19-21 depend from Claim 17 and include all of the limitations of Claim 17, which are similar to the limitations of Claim 1, except in the context of a computer-readable medium.

In view of the foregoing, it is respectfully submitted that Claims 3, 4, 9-11, 15 and 19-21 include one or more limitations that are not taught or suggested by *Spencer* and *Tentij*, alone or in combination, and are therefore patentable over *Spencer* and *Tentij*. Accordingly, reconsideration and withdrawal of the rejection of Claims 3, 4, 9-11, 15 and 19-21 under 35 U.S.C. § 103(a) as being unpatentable over *Spencer* in view of *Tentij* is respectfully requested.

REJECTION OF CLAIMS 12, 13 AND 16 UNDER 35 U.S.C. § 103(a)

Claims 12, 13 and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Spencer* in view of *Tentij* and further in view of *Hemphill et al.,* U.S. Patent No. 6,167,448 (hereinafter *"Hemphill"*). Claims 12, 13 and 16 depend from Claim 1 and include all of the limitations of Claim 1. As previously set forth herein, Claim 1 includes one or more limitations that are not taught or suggested by *Spencer* and Tentij. It is also respectfully submitted that these limitations are also not taught or suggested by *Hemphill*. For example, Claims 12, 13 and 16 require "retrieving, based upon the context value from the alarm message, from a table that associates context values to internal correlation key value formulas, a formula specifying how to generate an internal correlation key value, creating and storing the internal correlation key value based on the formula" and "generating the external correlation key value based on the internal correlation key value."

Hempfill describes an event notification system for a network that uses event notification messages written using a markup language. There is no description or suggestion in *Hemphill*, however, of generating an external correlation key value for use in correlating alarms emitted by network elements or system elements in a telecommunications network control apparatus in the manner required by Claims 12, 13 and 16, namely, by "retrieving, based upon the context value from the alarm message, from a table that associates context values to internal correlation key value formulas, a formula specifying how to generate an internal correlation key value, creating and storing the internal correlation key value based on the formula" and "generating the external correlation key value based on the internal correlation key value." It is therefore respectfully submitted that Claims 12, 13 and 16 are not taught or suggested by *Spencer, Tentij* and Hemphill, alone or in combination, and are patentable over *Spencer, Tentij* and Hemphill.

Accordingly, reconsideration and withdrawal of the rejection of Claims 12, 13 and 16 under 35 U.S.C. § 103(a) as being unpatentable over *Spencer* in view of *Tentij* and further in view of *Hemphill* is respectfully requested.

NEW CLAIMS 24-34

New Claims 24-34 depend from Claim 17 and include all of the limitations of Claim 17. It is therefore respectfully submitted that Claims 24-34 are patentable over the cited references for at least the reasons set forth herein with respect to Claim 17.

NEW CLAIMS 35-49

New Claims 35-49 depend from Claim 23 and include all of the limitations of Claim 23. It is therefore respectfully submitted that Claims 35-49 are patentable over the cited references for at least the reasons set forth herein with respect to Claim 23.

NEW CLAIMS 50-64

New Claims 50-64 depend from Claim 22 and include all of the limitations of Claim 22. It is therefore respectfully submitted that Claims 50-64 are patentable over the cited references for at least the reasons set forth herein with respect to Claim 22.

It is respectfully submitted that all of the pending claims are in condition for allowance and the issuance of a notice of allowance is respectfully requested. If there are any additional charges, please charge them to Deposit Account No. 50-1302.

The Examiner is invited to contact the undersigned by telephone if the Examiner believes that such contact would be helpful in furthering the prosecution of this application.

Respectfully submitted,

HICKMAN PALERMO TRUONG & BECKER LLP
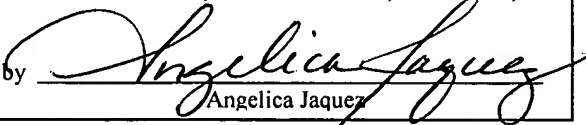
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